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EXAMINER
SAINT CYR, LEONARD

ART UNIT	PAPER NUMBER
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*10 December 2007*</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,13-33 and 35-46* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11, 13-33, 35-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 12/10/07 have been fully considered but they are not

persuasive.

Applicant argues that Coffman et al., do not require a store in the same sense as

the first store of claim 1 for storing input and output type data which can be dynamically

updated following every response (Amendment, pages 16 - 18).

The examiner disagrees, Coffman et al., teach that the DMAF comprises a

mechanism for conveying application properties to the CVM through the DMA. These

applications can be local or distributed across different devices or machines. Such

properties include the resources the application needs such as engine resources, data

files, and the algorithm string for input processing the user input. The task manager is a

CVM component that communicates with the conversational engines, and, thus, needs

to know the algorithm string of the user input and when such string is modified so that

the task manager can instantiate and use the proper engines for processing such user

input (paragraph 60, lines 1 – 9; paragraph 61, lines 6 – 10). Distributing application

properties such as, engine resources data files, and algorithm string for processing user

input, locally or across different machines implies storing input and output type data

which can be dynamically updated following every response, since the CVM instantiates

and uses proper engines for processing user input when algorithm string of the user is

modified.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1 – 11, 13 – 33, 35 - 46 are rejected under 35 U.S.C. 102(e) as being

anticipated by Coffman et al., (US PAP 2003/0005174).

As per claims 1, and 23, Coffman et al., teach an interactive dialogue that

comprises:

at least one input port; two or more output ports ("converts the abstract output

event into one or more modalities for presentation to the user"; paragraph 22, lines 6 –

8; paragraph 60, lines 9 – 12);

means for processing input responses to determine the semantic meaning

thereof (paragraph 94, line 5);

and control means for determining a suitable output prompt to be output from at

least one of said output ports in response to a received input response ("sending output

events to the appropriate engine"; paragraph 102, lines 4 – 7; paragraph 153);

wherein said output ports are respectively arranged to output prompts of different types ("pen recognition, speech recognition, TTS"; paragraph 153);

a first store storing input and output type data indicative of one or more properties of the input and output ports and/or the input responses and output prompts communicated therethrough ("properties includes the resources the application needs for processing the user input"; paragraph 60, lines 1- 9);

wherein said input and output type data is updated when: i) any of said one or more properties change; and/or ii) output prompts are sent; and/or iii) input responses are received ("The task manager is a CVM component that communicates with the conversational engines, and, thus, needs to know the algorithm string of the user input and when such string is modified so that the task manager can instantiate and use the proper engines for processing such user input"; paragraph 60; paragraph 61, lines 6 - 10).

As per claims 2, and 24, Coffman et al., teach an interactive dialogue that comprises:

two or more input ports; at least one output port ("voice command, and typed command"; paragraph 60; paragraph 22);

means for processing input responses received at one or more of said input ports to determine the semantic meaning thereof(paragraph 94, line 5);

and control means for determining a suitable output prompt to be output from at least one of said output ports in response to a received input response ("sending output events to the appropriate engine"; paragraph 102, lines 4 – 7; paragraph 153);

wherein said input ports are respectively arranged to receive input responses of different types ("voice command, and typed command"; paragraph 60); the apparatus and method further comprising

a first store storing input and output type data indicative of one or more properties of the input and Output ports and/or the input responses and output prompts communicated therethrough ("properties includes the resources the application needs for processing the user input"; paragraph 60);

wherein said input and output type data is updated when: i) any of said one or more properties change; and/or ii) output prompts are sent; and/or iii) input responses are received ("The task manager is a CVM component that communicates with the conversational engines, and, thus, needs to know the algorithm string of the user input and when such string is modified so that the task manager can instantiate and use the proper engines for processing such user input"; paragraph 60; paragraph 61, lines 6 - 10).

As per claims 3 and 25, Coffman et al., further disclose at least one additional output port, wherein said control means is further arranged to determine a suitable output prompt to be output from at least one of said output ports in response to a received input response ("sending output events to the appropriate engine"); and wherein said output ports are respectively arranged to output prompts of different types ("pen recognition, speech recognition, TTS"; paragraph 102, lines 4 – 7; paragraph 153).

As per claims 4 and 26, Coffman et al., further disclose that for any particular received input prompt, output prompts which are semantically synonymous (semantic meaning) or which mutually contribute towards a single semantic message independent of type are output from two or more of the output ports ("converts the abstract output event into one or more modalities for presentation to the user"; paragraph 94, line 5; paragraph 22, lines 6 – 8).

As per claims 5 and 27, Coffman et al., further disclose that each input or output port is adapted to connect to one or more input or output devices via respective device gateways ("input and output devices"; paragraph 172; paragraph 101, line 2).

As per claims 6 and 28, Coffman et al., further disclose that one of said properties is the utilization made by a user of each input and output port ("properties includes the resources the application needs for processing the user input"; paragraph 60).

As per claims 7, and 29, Coffman et al., further disclose that one of said properties is the connection of appropriate input or output devices to each of said input or output ports ("properties includes the resources the application needs for processing the user input"; paragraph 60).

As per claims 8, and 30, Coffman et al., further disclose that one of said properties is user preference value for each of said input and output ports ("confidence value"; paragraph 122).

As per claims 9, and 31, Coffman et al., further disclose that one of said properties is device property data of input or output devices connected to said input or output ports ("voice command and typed command"; paragraph 60, lines 9 – 12).

As per claims 10 and 32, Coffman et al., further disclose that one of said properties is implementation data indicative of: whether an output prompt has been implemented in each output prompt type and/or input parse rules for each input response type (NLU parse tree...and data associated with a NLU process"; paragraph 103, lines 1 – 4; paragraph 122).

As per claims 11 and 33, Coffman et al., further disclose that one of said properties is type-supported data indicative of whether the apparatus is capable of receiving and/or outputting input responses and/or output prompts of each type ("converts the abstract output event into one or more modalities for presentation to the user"; paragraph 22).

As per claims 13, and 35, Coffman et al., further disclose that the update of said data comprises instantiating new data structures ("hierarchical tree structure") to store

the values of said changed properties, and storing said previous data to give a historical

record of said data ("transaction history"; paragraph 13, line 7; paragraph 64, lines 1 –

4).

As per claims 14, and 36, Coffman et al., further disclose that said input and

output type data further includes timing data indicative of the timings of changes in said

one or more properties (" time stamped"; paragraph 163).

As per claims 15, and 37, Coffman et al., further disclose that said input and

output type data comprises a single data entry for each input and output type, the value

taken by a particular data entry being dependent on previous values of any one or more

of that or other data entries ("top scoring query result"; paragraphs 66, and 122).

As per claims 16, and 38, Coffman et al., further disclose a second store data

defining a dialogue to be held with a user, and dialogue progression conditions which

must be met to allow a user to progress through the dialogue, at least some of said

conditions involving the stored input and output type data ("for any given user input,

arbitration mechanism will determine the target DMA instance managing the associated

sub-dialog"; paragraphs 48, 49, and 59).

As per claims 17, and 39, Coffman et al., further disclose a second store storing

data defining a dialogue model comprising an initial state, a plurality of subsequent

states, possible transitions between said states, and for each transition at least one associated condition to be satisfied before that transition is deemed allowable, at least some of said conditions involving the stored input and output type data ("hierarchical tree structure that contains root, parent and children nodes"; paragraph 13; paragraph 49).

As per claims 18, and 40, Coffman et al., further disclose that the second store comprises a plurality of distributed storage media ("multimedia streams"; paragraph 104, line 15)

As per claims 19, and 41, Coffman et al., further disclose port control means for controlling the connections of input or output devices to said input or output ports in response to the stored input and output type data ("a mechanism for sending output events to the appropriate engine"; paragraph 153, lines 4 – 6).

As per claims 20, and 42, Coffman et al., further disclose means for generating output prompts ("compose prompts"), said means being operable to generate output prompts adapted for particular output ports in dependence on the stored input and output type data ("a mechanism for sending output events to the appropriate engine"; paragraph 102, lines 4 – 7; paragraph 153, lines 4 – 6).

As per claims 21, and 43, Coffman et al., further disclose that first store comprises a plurality of distributed storage media each logically interconnected ("multimedia streams"; paragraph 104, line 15).

As per claims 22, and 44, Coffman et al., further disclose that the different types of output prompts or input responses comprise audio prompts or responses, or visual prompts or responses, or motor prompts or responses, in any combination thereof ("text-to-display or prompt is provided"; paragraph 166, lines 17, and 18).

As per claim 45, and 46, Coffman et al., further disclose that a computer program or suite of programs so arranged such that when loaded into a computer it or they renders the computer an apparatus according to claims 1, and 23 (paragraph 180).

Conclusion

4.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard Saint-Cyr whose telephone number is (571) 272-4247. The examiner can normally be reached on Mon- Friday.

          If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

          Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

03/18/08

/Richemond Dorvil/

Supervisory Patent Examiner, Art Unit 2626